

## WHAT IS CLAIMED IS:

1           1.   For use in a browser, a converter for adapting  
2 markup language documents for display in small areas  
3 comprising:

4               a conversion controller scanning a portion of  
5 markup language source selected for display for tags  
6 associated with graphical elements and replacing each  
7 detected graphical element within the selected markup  
8 language source portion with one of a plurality of  
9 placeholders having labels corresponding to a set of  
10 buttons,

11               wherein the plurality of placeholders are reused  
12 to replace detected graphical elements within other  
13 portions of the markup language source when such other  
14 portions are selected for display.

1           2.   The converter according to claim 1, wherein each  
2 button is a physical switch or display element functioning  
3 as a user control for initiating display of a graphical  
4 element replaced by a corresponding placeholder.

1           3.    The converter according to claim 1, wherein the  
2           graphical elements replaced by one of the placeholders  
3           includes images, user controls, hyperlinks, tables, and  
4           animations.

1           4.    The converter according to claim 1, wherein the  
2           conversion controller, responsive to selection of the  
3           markup language source portion for display, replaces a tag  
4           associated with each detected graphical element with a link  
5           to one of the placeholders.

1           5.    The converter according to claim 4, wherein the  
2           conversion controller, responsive to selection of a  
3           different portion of the markup language source for display  
4           including a different set of graphical elements than the  
5           previously selected markup language portion, replaces a tag  
6           associated with each detected graphical element within the  
7           different markup language source portion with a link to one  
8           of the placeholders, thereby reusing placeholders for the  
9           different set of graphical elements.

1           6. The converter according to claim 4, wherein the  
2 conversion controller passes altered markup language source  
3 containing at least one link to one of the placeholders in  
4 place of a graphical element within the selected markup  
5 language source portion to a markup language interpreter  
6 for rendering and display.

1           7. The converter according to claim 6, wherein  
2 actuation of a button corresponding to a placeholder within  
3 a displayed portion of the altered markup language source  
4 initiates display of the graphical element replaced by the  
5 corresponding placeholder.

1           8.    A communications device comprising:  
2                a display;  
3                an input for receiving a markup language document  
4   to be displayed on the display; and  
5                a conversion controller scanning a selected  
6   display portion of source for the markup language document  
7   for tags associated with graphical elements and replacing  
8   each detected graphical element within the selected markup  
9   language source portion with one of a plurality of  
10   placeholders having labels corresponding to a set of  
11   buttons,

12               wherein the plurality of placeholders are reused  
13   to replace detected graphical elements within other  
14   portions of the markup language source when such other  
15   portions are selected for display.

1           9.    The communications device according to claim 8,  
2   wherein each button is a physical switch or display element  
3   functioning as a user control for initiating display of a  
4   graphical element replaced by a corresponding placeholder.

1           10. The communications device according to claim 8,  
2           wherein the graphical elements replaced by one of the  
3           placeholders includes images, user controls, hyperlinks,  
4           tables, and animations.

1           11. The communications device according to claim 8,  
2           wherein the conversion controller, responsive to selection  
3           of the markup language source portion for display, replaces  
4           a tag associated with each detected graphical element with  
5           a link to one of the placeholders.

1           12. The communications device according to claim 11,  
2           wherein the conversion controller, responsive to selection  
3           of a different portion of the markup language source for  
4           display including a different set of graphical elements  
5           than the previously selected markup language portion,  
6           replaces a tag associated with each detected graphical  
7           element within the different markup language source portion  
8           with a link to one of the placeholders, thereby reusing  
9           placeholders for the different set of graphical elements.

1           13. The communications device according to claim 11,  
2           wherein the conversion controller passes altered markup  
3           language source containing at least one link to one of the  
4           placeholders in place of a graphical element within the  
5           selected markup language source portion to a markup  
6           language interpreter for rendering and display.

1           14. The communications device according to claim 13,  
2           wherein actuation of a button corresponding to a  
3           placeholder within a displayed portion of the altered  
4           markup language source initiates display of the graphical  
5           element replaced by the corresponding placeholder.

1           15. A method of adapting markup language documents  
2           for display in small areas comprising:

3                 scanning a portion of markup language source  
4           selected for display for tags associated with graphical  
5           elements;

6                 replacing each detected graphical element within  
7           the selected markup language source portion with one of a  
8           plurality of placeholders having labels corresponding to a  
9           set of buttons; and

10                reusing the plurality of placeholders to replace  
11           detected graphical elements within other portions of the  
12           markup language source when such other portions are  
13           selected for display.

14           16. The method according to claim 15, wherein each  
15           button is a physical switch or display element functioning  
16           as a user control for initiating display of a graphical  
17           element replaced by a corresponding placeholder.

18           17. The method according to claim 15, wherein the  
19           graphical elements replaced by one of the placeholders  
20           includes images, user controls, hyperlinks, tables, and  
21           animations.

1           18. The method according to claim 15, wherein the  
2           step of replacing each detected graphical element within  
3           the selected markup language source portion with one of a  
4           plurality of placeholders having labels corresponding to a  
5           set of buttons further comprises:

6                       responsive to selection of the markup language  
7           source portion for display, replaces a tag associated with  
8           each detected graphical element with a link to one of the  
9           placeholders.



1           19. The method according to claim 18, wherein the  
2           step of reusing the plurality of placeholders to replace  
3           detected graphical elements within other portions of the  
4           markup language source when such other portions are  
5           selected for display further comprises:

6                   responsive to selection of a different portion of  
7           the markup language source for display including a  
8           different set of graphical elements than the previously  
9           selected markup language portion, replaces a tag associated  
10          with each detected graphical element within the different  
11          markup language source portion with a link to one of the  
12          placeholders, thereby reusing placeholders for the  
13          different set of graphical elements.

14           20. The method according to claim 18, further  
15           comprising:

16                   passing altered markup language source containing  
17           at least one link to one of the placeholders in place of a  
18           graphical element within the selected markup language  
19           source portion to a markup language interpreter for  
20           rendering and display.

responsive to actuation of a button corresponding to a placeholder within a displayed portion of the altered markup language source, initiating display of the graphical element replaced by the corresponding placeholder.